IN THE CLAIMS:

Please amend claims 1, 2, 3, 4, 5, 7, 8, 9, 10, 11 and 13-18 as follows:

1. (Amended) An acceleration sensor for detecting acceleration, comprising;

a transducer;

a weight portion that is connected to the transducer, and supported at a position different from the center of gravity of the transducer and the acceleration sensor; and

a detecting section which detects the amount of characteristic corresponding to an angular moment that is exerted in the transducer upon application of an acceleration in one direction to the transducer and the weight portion,

wherein a face of the transducer is made flush with a face of the weight portion.

2. (Amended) The acceleration sensor according to claim 1 wherein

the transducer is provided as a torsion vibrator made by a piezoelectric element, and the amount of characteristic is a voltage in the torsion vibrator corresponding to the angular moment.

3. (Amended) The acceleration sensor according to claim 1, wherein

the transducer comprises two piezoelectric elements which are mechanically connected to each other and are subjected to sliding deformation.

4. (Amended) An acceleration sensor for detecting acceleration, comprising;

a transducer;

a weight portion that is connected to the transducer, and supported at a position different from the center of gravity of the transducer and the acceleration sensor; and

a detecting section which detects a Coriolis force that caused by a rotation angular velocity exerted in the transducer upon application of an acceleration in one direction to the transducer and the weight portion while the transducer is vibrating in a constant direction,

wherein a face of the transducer is made flush with a face of the weight portion.

5. (Amended) The acceleration sensor according to claim 4, wherein

a rotation axis of the rotation angular velocity is set in the same direction as a detection axis of the Coriolis force.

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7. (Amended) An acceleration sensor for detecting acceleration, comprising:

a first sensor having a first vibrator supported at a position, with the center of gravity thereof being different from the position at which the first transducer is supported, wherein, upon application of an acceleration in one direction, a rotation angular velocity is exerted in the first transducer;

a second sensor having a second transducer supported at a position, with the center of gravity thereof being the same as the position at which the second transducer is supported,

wherein, upon application of an acceleration in one direction, no rotation angular velocity is exerted in the second transducer; and

a differential detector which detects a difference between outputs of the first sensor and the second sensor as to confirm a state of linear motion.

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8. (Amended) The acceleration sensor according to claim 7, wherein

a rotation axis of the rotation angular velocity of the first sensor and a rotation axis of the rotation angular velocity of the second sensor are set in the same direction.

9. (Amended) The acceleration sensor according to claim 7, wherein

the characteristic of the first transducer and the characteristic of the second transducer are coincident with each other.

10. (Amended) The acceleration sensor according to claim 8, wherein

the characteristic of the first transducer and the characteristic of the second transducer are coincident with each other.

A3 cont.

11. (Amended) The acceleration sensor according to claim 7, wherein a plurality of sets, each of said sets comprises the first sensor, the second sensor and the differential detector are provided.

13. (Amended) The acceleration sensor according to claim 9, wherein a plurality sets, each of said sets comprises the first sensor, the second sensor and the differential detector are provided.

14. (Amended) The acceleration sensor according to claim 10, wherein a plurality of sets, each of said sets comprises the first sensor, the second sensor and the differential detector are provided.

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15. (Amended) The acceleration sensor according to claim 11, wherein the sets are arranged so that detection directions for acceleration in the respective sets are made orthogonal to each other.

16. (Amended) The acceleration sensor according to claim 12, wherein the sets are arranged so that detection directions for acceleration in the respective sets are made orthogonal to each other.

17. (Amended) The acceleration sensor according to claim 13, wherein the sets are arranged so that detection directions for acceleration in the respective sets are made orthogonal to each other.

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18. (Amended) The acceleration sensor according to claim 14, wherein the sets are arranged so that detection directions for acceleration in the respective sets are made orthogonal to each other.